

WHAT IS CLAIMED IS:

1. A *Brassica* plant producing seeds having a long chain monounsaturated fatty acid content of at least about 82% and an erucic acid content of at least about 15% based on total fatty acid composition.
- 5 2. The plant of claim 1, said seeds having an oleic acid content of at least about 37% based on total fatty acid composition.
3. The plant of claim 1, said seeds having an eicosenoic acid content of at least about 14% based on total fatty acid composition.
4. The plant of claim 1, wherein said monounsaturated fatty acid content is from about
10 85% to about 90%.
5. The plant of claim 4, said seeds having an oleic acid content of at least about 42% based on total fatty acid composition.
6. The plant of claim 5, wherein said oleic acid content is from about 47% to about 56%.
7. The plant of claim 4, said seeds having an erucic acid content of from about 17% to
15 about 31% based on total fatty acid composition.
8. The plant of claim 4, said seeds having an eicosenoic acid content from about 15% to about 21% based on total fatty acid composition.
9. The plant of claim 1, said seeds having a saturated fatty acid content of less than about 7% based on total fatty acid composition.

10. The plant of claim 1, said seeds having a polyunsaturated fatty acid content of less than about 11% based on total fatty acid composition.

11. Progeny of the plant of claim 1, said progeny having said long chain monounsaturated fatty acid content and said erucic acid content.

5 12. A *Brassica* seed oil having a long chain monounsaturated fatty acid content of at least about 82% and an erucic acid content of at least about 15% based on total fatty acid composition.

13. The oil of claim 12, said oil having an oleic acid content of at least about 37% based on total fatty acid composition.

10 14. The oil of claim 12, said oil having an eicosenoic acid content of at least about 14% based on total fatty acid composition.

15. The oil of claim 12, wherein said monounsaturated fatty acid content is from about 85% to about 90%.

15 16. The oil of claim 15, said oil having an oleic acid content of at least about 42% based on total fatty acid composition.

17. The oil of claim 16, wherein said oleic acid content is from about 47% to about 56%.

18. The oil of claim 15, said oil having an erucic acid content of from about 17% to about 31% based on total fatty acid composition.

19. The oil of claim 15, said oil having an eicosenoic acid content from about 15% to about 21% based on total fatty acid composition.
20. The oil of claim 12, said oil having a saturated fatty acid content of less than about 7% based on total fatty acid composition.
- 5 21. The oil of claim 12, said oil having a polyunsaturated fatty acid content of less than about 11% based on total fatty acid composition.
22. The oil of claim 21, wherein said polyunsaturated fatty acid content is less than about 9%.
23. A method of producing a plant having a long chain monounsaturated fatty acid
10 content of at least about 82% and an erucic acid content of at least about 15% based on total fatty acid composition, said method comprising the steps of crossing a first plant line with a second plant line and selecting progeny of said cross having said monounsaturated content, wherein said first plant line has an erucic acid content of at least about 45% based on total fatty acid composition and said second plant line has an oleic acid content of at
15 least about 84% based on total fatty acid composition.